

Ladies and Gentlemen;

**(Overhead 1: TITLE SLIDE: INDUSTRY PERSPECTIVE - ACCELERATING
US INVESTMENT IN CHINA)**

I am honored to be one of today's presenters at this first dialogue between Chinese and US government and energy industry representatives. It is always good to return to China, my home for over five years, and to see so many friends. Much progress has been made in mutually beneficial cooperation in China's oil and gas industry. There are many more opportunities to pursue.

To help further this cooperation in October of 1997, SDPC Minister Zeng Pei Yan of China and Energy Secretary Federico Pena of the United States signed a comprehensive statement on energy and the environment. Under the agreement, China and the US planned a joint program of

- conducting research,
- sharing data,
- expanding the use of energy efficiency and clean energy technologies such as natural gas, and
- facilitating trade and investment in these technologies.

These initiatives are intended to help meet China's growing energy needs with clean energy solutions.

(Overhead 2: ENERGY IN CHINA' S NINTH 5-YEAR PLAN (1996-2000))

As described in this statement from the Ninth 5-Year Plan (1996-2000), “The ability of the energy industry in propping up national economic growth will be further strengthened” .

Let' s take a minute to review China' s energy picture.

It is estimated that China' s energy consumption will reach approximately 1650 million tons coal equivalent (mtce) in 2000, an increase of 28% from 1995. By 2015, energy consumption is forecast to reach over 2600 mtce. Billions of renminbi and billions of dollars of investment will be necessary to meet this goal.

(Overhead 3: ENERGY CONSUMPTION BY FUEL - PERCENTAGES)

Coal, oil, natural gas, nuclear energy and hydropower contribute to China' s energy mix.

In 1995 coal contributed over 73% of China' s total energy needs and coal' s contribution to the energy supply mix is projected to increase to over 77% by 2015.

Oil' s contribution is expected to decline from 19.5% in 1995 to slightly more than 10% by 2015. China is the world' s largest user of hydroelectric power. As you can see from the pie chart, hydroelectric currently contributes about 5% and this will increase to 6% by 2015.

Natural gas will play an increasingly important role in China's energy future. Natural gas is currently underrepresented in China and contributes only 2% to the energy mix. Development of natural gas has only recently begun and additional major infrastructure expenditures will be needed to bring natural gas to market. To facilitate the use of natural gas, CNOOC and CNPC are conducting a study for the Chinese government of natural gas, LNG and pipelines. Natural gas usage is projected to double to 4% by 2015.

Nuclear is the final contributor in the energy supply mix and as you can see from this chart, nuclear will increase from a mere .3% to 1.6% of the energy supply mix in 2015.

(Overhead 4: ENERGY CONSUMPTION BY FUEL - MTCE)

This chart is similar to the last, and I have used units of million tons coal equivalent (mtce). I chose 'mtce' because coal is the most significant contributor to China's energy mix and will remain so. In 1995, total energy consumption was 1293 mtce and this will more than double in the next 15 years.

(Overhead 5: ENERGY CONSUMPTION BY SECTOR)

Let's take a minute and see how energy is used by sector in 1995 and how this is projected to change in 2015

All sectors show an increase in 'mtce' energy consumption between 1995 and 2015 but the percentages vary. "Industry" is by far the largest user of energy in China and will remain the largest energy user in 2015. The sector "Buildings" describes residential and commercial energy usage such as home and office building heating and cooling and shows the largest percentage increase by 2015 primarily because more home consumers will have access to electricity. "Transportation" consumes 10 % of China's total energy now and will increase to 12% because of an increase in vehicles. Agriculture is the smallest energy user at just over 5% in 1995 decreasing to 2% as a percent of total in 2015.

(Overhead 6: PRODUCTION AND RESERVES - CHINA AND THE WORLD)

In 1997, China was the 5th largest oil producer in the world at approximately 3.2 million barrels per day which is 4% of worldwide production. China has about 3-4% of world oil reserves.

Gas reserves, because development has been limited are a mere 0.8% of the world's total.

China's coal reserves are estimated to equal 11.1% of the world's.

China has the world's fastest growing economy and faces extreme challenges within its energy industry to continue to fuel this economic growth.

(Overhead 7: CHINA ENERGY IMPORTS - 1995 and 2015)

As you have seen from the demand projections, all sectors of the economy are projected to need more energy. By 2015, China will need to import approximately 25% of its total energy needs.

Twenty percent of total energy needs will need to be imported in the form of crude oil - about 7.0 mmbopd. (Range: 5.8-8.6 mmbopd, 288-427 mtoe, 427-610 mtce)

Urban consumers demand for clean, household fuels such as natural gas is increasing. Natural gas supply will not meet projected demand and 4% of total energy needs to be imported by 2015 in the form of natural gas - about 70 billion cubic m or the equivalent of 1.3 mmbopd. (Range: 54-78 billion cubic meters, 0.9-1.3 mmbopd, 70-100 mtce or 47-67 mtoe).

Increased cooperation between the US and China can contribute to successfully managing these challenges ensuring that China will have the energy it needs to meet its economic growth targets and improve the quality of life for its people.

It is estimated that from 1979 to 1997, the total amount of foreign investment in the upstream for exploration and development has been \$6-7 billion US dollars. Of this amount, US companies have spent 40% or between \$2.4-2.8 billion.

For this \$6-7 billion invested to date, the industry will probably only recover \$2-3 billion; less than half of what it has invested. Even the most successful companies have seen only a 5% IRR (internal rate of return) on their investment versus recognized internationally required rates of return of greater than 15%.

(Overhead 8: THEMES - ACCELERATING US INVESTMENT IN CHINA)

The China - US Oil and Gas Industry Forum evolved from the cooperation between China and the US government and US industry. Today's dialogue will be organized around three themes:

- 1) Increased US participation can contribute to a reliable and stable energy base within China.
- 2) Continued US participation has and will continue to facilitate the transfer of state-of-the art technology to China's energy sector.
- 3) Practices which would encourage increased foreign direct investment and private investment to China's oil and gas sector.

(Overhead 9: CREATE A RELIABLE AND STABLE ENERGY BASE)

When I first started my career in the 1970' s with Phillips Petroleum, I had the opportunity to work in both the UK and Norway. It has been just slightly more than 30 years since the oil and gas industry got started in these countries. In fact, my company discovered the first offshore oil and gas in Norway. Look at how far their oil and gas industries have come - both the UK and Norway are industry leaders in oil and gas production and services and export oil and gas to much of the world. The US has been proud to have been a contributor to these successes.

China probably faces tougher challenges than the UK and Norway did. In addition to its rapid economic growth, China had a well-developed petroleum industry even before foreign participation was invited in. Merging these to achieve the best of both is a necessary but difficult task. But, first, China must decide what type energy mix it wants. Once decided, the industry, both domestic and international, will deliver a reliable and stable energy base to help China meet its goals.

US oil and gas firms have succeeded in providing low cost, reliable, stable energy to US consumers through a balance of domestic production and imports. And, US companies have been partners with other countries working to provide energy for their specific energy mix and their specific requirements.

By providing financing, state of the art technology, and lessons learned from other markets, US participation in China's energy industry will greatly assist in securing a reliable energy supply to meet China's economic development needs.

(Overhead 10: TECHNOLOGY TRANSFER)

China and the US energy industries are similar - both have mature onshore production from many low productivity wells operating at high cost. The US industry, through its enhance recovery technology, continues to maximize production from these wells even in today's low price environment.

The largest coal bed methane production in the world is in the United States, 82.2 million cubic meters per day (2.9 bcfd) which represents about 6% of total US gas production in 1997. Today, Texaco, Arco and Phillips, among others, have coal bed methane partnerships in China

Deep water technology has given new life to the Gulf of Mexico. Current production is in 1395 m (5300 feet) of water with plans to develop in 2287m (7500 feet), ultimately going to over 3000 m (10,000 feet) of water.

Here in China, my company, Phillips Petroleum Company, drilled a world record for longest horizontal displacement, 8.063 km (5.01 miles). Arco laid the second largest

subsea pipeline in the world, over 800 km, from the Yaching Gas Field to Hong Kong.

Other companies have made similar contributions to the Chinese industry.

Strategic alliances between US companies and China in both the upstream and the downstream have been formed to establish local technology development.

And Chinese employees are being trained in China and in the United States not only in engineering and science, but also in technology management; environmental, safety and health; patent law; and information technology.

This technology transfer from US firms will enable China to competitively develop its natural resources; increase its energy efficiency, and maximize the availability of indigenous oil and gas supplies while at the same time protecting China's environment while in a low price environment.

(Overhead 11: PRACTICES TO ENCOURAGE FOREIGN DIRECT INVESTMENT AND PRIVATE FINANCING)

Foreign direct investment and private financing will be necessary if China is to optimally meet its energy objectives. US firms can offer much-needed private capital and can offer valuable information about how to attract private sector funding for energy projects.

US companies, as do all private firms, make investment decisions by balancing the expected project return with the associated project risk and comparing a project's risk/return profile to alternative investment opportunities. Rate of return is calculated by comparing the timing of cash inflows vs. the timing of the cash outflows. Delays in the cash inflows and increases in costs reduce the project's rate of return.

Project risks faced by investors include technical, commercial, currency, regulatory and political risks. The greater the perceived project risk, the greater the required return on investment.

Providing a transparent legal and regulatory environment is key to encouraging continued foreign direct investment and private financing. Transparency reduces project risk. Clearly defined contract terms reduce project risk.

(Overhead 12: ACCESS ISSUES IN CHINA)

In today's global economy, capital moves freely to those projects and those countries which generate the highest rate of return. Asset quality is critical to generating project cash outflows and competitive rates of return. Therefore, the quality of the asset offered is critical to attracting freely moving capital. Access to quality projects in China is a significant issue in the energy and petrochemical sectors:

- Access to the more promising exploration and development prospects in the upstream (exploration and production) part of the business.
- Access to all available data to evaluate potential ventures.
- Access to markets and end-use customers in the downstream (refining and marketing) and petrochemicals;
- Access to major investment opportunities, such as refineries, petrochemical plants, LNG import facilities, natural gas transmission facilities, and power plants.

(Overhead 13: UPSTREAM ACCESS ISSUES)

International oil companies and CNOOC have jointly developed offshore properties through production sharing contracts since 1980. In the early 1990's, international oil companies and CNPC have jointly explored onshore properties. Considerable progress has been made in forging effective working relationships but project results, particularly for onshore properties, have been disappointing. Publicly available information and reports indicate that foreign participants have not been given access to properties of potentially high commercial value.

In addition, data has been restricted, difficult to acquire because there is no central repository, and costly. Data has not been made available basin-wide. Without complete information, oil companies are reluctant to sign contracts with significant drilling commitments. This results in an overall lower exploration investment in the country. Due to this perceived lack of opportunities, foreign capital may be diverted from China to other countries with more accessible and attractive prospects which can also generate competitive rates of return.

(Overhead 14: TEN CONTRACTUAL ISSUES TO CONSIDER)

When Phillips considers entering a new market, 10 contractual issues are evaluated. The more of these that are favourable, the more likely we are to consider participation in the new market. The ten issues are shown here:

- Ability to export to outside market
- Favorable exchange regulations
- Fair and impartial arbitration of disputes
- Minimum signature bonus
- Work program consistent with risks
- Decision Making
- Minimum transportation obligations
- US tax credibility
- Fiscal stability
- Expected returns exceeding cost of capital

(Overhead 15: DOWNSTREAM ACCESS ISSUES)

I would be remiss if I did not mention downstream issues.

In a major policy statement published by the Communist Party journal *Seeking Truth* last year, then Premier Li Peng, who is now Chairman of the People's Congress, emphasized the importance of utilizing both domestic and foreign capital to tap China's abundant mineral resources. The revised Guiding Catalogue for Foreign Investment in Industry, which took effect January 1, 1998, officially encourages foreign participation in certain petroleum, petrochemical and chemical projects.

Access in both the downstream and petrochemical areas is restricted in China. US participation in refining and petrochemicals is limited to a minority interest or 50% in special circumstances. Access to retail marketing and use of foreign brands is permissible only under special circumstances. The primary constraint is related to restrictions on participation in distribution services. In addition, refineries, petrochemical plants and power plants require significant investment. To date, participation in these areas has been limited because of the difficulty in negotiating internationally competitive terms and the time-consuming approval process.

Increased access for US companies in the upstream and downstream sectors would provide projects with competitive rates of return which would help China continue to attract foreign direct investment and private financing and thus meet its energy goals outlined in the Ninth 5-Year Plan.

(SUMMARY - Turn off Projector)

I hope some these comments have provided the stimulus for the discussion which follows. Although I have been a resident of this fine country and an admirer of its people and its progress for many years, I feel it would be inappropriate for me, as well as for the US industry, to venture to recommend a specific course of action for China and its energy policy. I would only suggest that China, based on its decision as to what energy mix is best for China' s needs, study the international industry to see what programs may be most appropriate. China must shape its own energy policy with its own Chinese character.

Thank you.